

Historic, Archive Document

Do not assume content reflects current
scientific knowledge, policies, or practices.

aTS1577
.A3U52

U.S. DEPT. OF AGRICULTURE
NAT'L AGRIC. LIBRARY
RECEIVED

REPORT NO. 12

JAN 25 '74

PROCUREMENT SECTION
CURRENT SERIAL RECORDS

Cotton Fiber and Processing Test Results

CROP of

1970



Consumer and Marketing Service
U.S. DEPARTMENT OF AGRICULTURE
Memphis, Tenn. 38117 January 22, 1971

This is the twelfth, and last, report on fiber and processing test results on the 1970 cotton crop. These reports were issued twice each month during the harvesting season, and will be summarized in a comprehensive report to be issued in early spring. This 1970 group of reports gives data on the same subject as AIB 344, "Summary of Cotton Fiber and Processing Test Results, Crop of 1969, May 1970." These reports are published by the Standardization Section, Cotton Division, Consumer and Marketing Service, U. S. Department of Agriculture, Memphis, Tennessee.

COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1970

Discussion of Test Results

Cotton testing laboratories of the Consumer and Marketing Service, USDA, report that average value for fiber and processing test results for all medium staple samples tested through January 15, 1970 show no significant changes from last year except for picker and card waste. Average picker and card waste is lower in the 1970 crop compared to the 1969 crop.

Southwestern short staple samples are finer and stronger than a year ago. Waste content is lower. Yarns spun from these samples are stronger with fewer imperfections. Average spinning potential yarn number is higher than last season.

No additional Southeastern medium staple samples were received during this report period.

South Central medium staple samples are weaker than a year ago. Yarns spun from these samples are weaker with lower appearance grades and more imperfections. Average spinning potential yarn number is unchanged.

Southwestern medium staple samples are longer than last season. Fiber strength at 1/8-inch gage is stronger. Picker and card waste is lower. Yarns spun from these samples show fewer imperfections. Average spinning potential yarn number is higher.

Western medium staple samples are finer and weaker at 1/8-inch gage than a year ago. Picker and card waste is lower. Yarns spun from these samples show more imperfections. Average spinning potential yarn number is higher.

No additional long staple samples were received during this report period.

Western extra long staple, upland, samples are shorter, finer and stronger than a year ago. Trash content is lower. Yarns spun from these samples are weaker with lower appearance grades and more imperfections.

Western extra long staple, American Pima, samples are longer, finer and stronger than last season. Yarns spun from these samples are stronger with lower appearance grades and more imperfections.

Table 1.--Cotton: Averages of fiber and processing tests from selected gin points in the United States
through January 15, 1971 1/

Staple group Area, and Crop year	Lots tested	Fiber test results						Processing test results										
		Fibrograph		Mike fine- ness	Fiber strength		S A nonlint	P & C waste	Yarn quality			Spin. Potent.						
		2.5% span	50/2.5 unif.		Zero gage	1/8" gage			Skein str.	Appear- ance	Imperf- ections							
				Inches			Pct.	Rdg.				Mpsi	G/tex	Pct.	Pct.	Lbs.	Index	No.
22s Carded Yarn																		
Short Staple: Southwest 1969 1970 Medium Staple: Southeast 1969 1970 South Central 1969 1970 Southwest 1969 1970 West 1969 1970 U.S. Average 1969 1970	76	0.93	45	4.1	83	20.1	3.8	7.6	87	111	35	39						
	63	0.94	46	4.3	86	21.1	3.2	6.0	93	114	29	43						
	91	1.09	46	4.6	83	22.9	3.3	7.1	104	101	22	60						
	83	1.07	45	4.4	83	22.6	3.6	6.7	102	101	18	60						
	195	1.10	45	4.6	84	22.8	3.0	6.5	107	111	19	61						
	171	1.09	45	4.5	82	22.3	3.2	6.2	102	106	22	61						
	76	1.04	45	4.2	86	22.3	3.4	7.0	104	110	31	56						
	66	1.06	46	4.2	87	22.9	3.2	6.3	106	113	29	62						
	78	1.10	45	4.4	94	25.3	3.0	6.3	119	111	22	66						
	70	1.10	45	4.2	93	24.8	2.7	5.7	118	113	25	70						
Significant dif- ference 2/	440	1.09	45	4.5	86	23.2	3.1	6.7	108	109	22	61						
	390	1.08	45	4.4	85	22.9	3.2	6.2	106	107	21	63						
		0.02	2	0.2	2	0.5	0.5	0.5	4(22s) 2(50s)	5	2	3						

1/ Based on a limited number of samples of modal quality
2/ Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

Table 1.--Cotton: Averages of fiber and processing tests from selected gin points in the United States through January 15, 1971 1/ (Continued)

Staple group Area, and Crop year	Lots tested	Fiber test results							Processing test results									
		Fibrograph		Mike fine- ness	Fiber strength		S A nonlint	P & C waste	Yarn quality									
		2.5% span	50/2.5 unif.		Pct.	Rdg.			Mpsi	G/tex	Pct.	P & C waste	Skein str.	Yarn appearance	Imperf- ections	Spinn- ing Potent.		
																	No.	Inches
22s Carded Yarn																		
<u>Long Staple:</u> Southeast 1970 South Central 1970 West 1969 1970	14	1.14	45	4.7	82	23.2	4.5	8.6	109	103	21	65						
	6	1.16	42	4.6	85	23.8	4.5	9.2	102	93	26	62						
	23	1.18	46	4.1	92	26.2	3.0	7.1	135	98	23	79						
	20	1.18	45	3.7	92	26.8	3.5	8.2	134	86	43	75						
<u>Extra Long Staple:</u> West 1969 1970 West 1969 1970																		
Significant dif- ference <u>2/</u>																		

1/ Based on a limited number of samples of modal quality
2/ Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1970

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns											
Grade		Stple	32s	Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potent-ial			
				2.5% span	Unif		Zero Gage	1/8" Gage			Pct	Pct		Gra	Yel	8s or 7 1/4 tx	22sor 27 tx	8s or 7 1/4 tx	22sor 27 tx	8s or 7 1/4 tx	22sor 27 tx		8s or 7 1/4 tx	22sor 27 tx	
No	Name & Code			In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No	No			
SOUTHWESTERN AREA																									
NORTHWEST TEXAS																									
ANSON																									
4	MID LT SP	32	30	0.94	45	4.4	86	LANKART 611	20.9	6.4	3.0	2	4	100 PERCENT	87	6.7	5.8	130	120	46	30	38			
LAKEVIEW																									
2	SLM LT SP	42	30	0.97	47	4.1	96	PAYMASTER 202	23.1	5.9	3.9	4	4	100 PERCENT	113	6.7	5.8	120	120	51	30	50			
3	MID LT SP	32	30	0.90	46	3.9	95		22.6	5.9	3.1	2	4	6.1	338	100	6.3	5.6	120	120	43	27	39		
LUBBOCK																									
3	SLM	41	32	1.01	45	4.1	89	SWEATT 75M	20.7	6.2	3.1	2	3	5.7	343	105	6.7	6.0	120	120	47	29	56		
MORTON																									
3	MID SP	33	29	0.90	47	3.5	93	RILCOT 90	22.5	6.5	3.2	4	6	5.8	350	105	7.2	6.1	110	110	68	36	43		
PADUCAH																									
3	MID LT SP	32	30	0.95	45	4.2	87	LANKART 57	21.0	6.8	3.3	2	4	6.6	306	91	6.4	5.6	120	120	49	31	43		
ROSCOE																									
4	MID LT SP	32	30	0.92	46	4.2	85	WESTERN STRMPRF	19.5	6.0	3.1	2	4	6.0	310	93	6.7	5.8	120	110	41	25	45		
STAMFORD																									
4	MID LT SP	32	30	0.96	46	4.8	85	LANKART 57	21.8	7.0	2.6	2	3	5.6	309	92	6.8	5.9	130	120	35	21	44		
WELLMAN																									
3	MID LT SP	32	30	0.94	44	3.5	76	LANKART 57	19.6	8.0	3.0	2	4	5.5	312	92	7.7	6.7	110	110	74	43	44		
OKLAHOMA																									
FREDERICK																									
3	MID LT SP	32	30	0.92	45	4.8	82	LANKART 57	20.9	6.9	2.9	2	4	6.0	285	85	6.3	5.6	120	120	41	26	35		
GOTERO																									
3	SLM LT SP	42	30	0.91	45	4.6	85	LANKART 57	20.6	6.6	3.4	3	4	5.1	316	93	6.8	5.8	120	110	42	26	38		

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1970

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
Grade & Code		Stple	32s	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfect'ns		Spin. Poten- tial	
				2.5% span	Unif.		Zero	1/8" Gage			Mpsi	G/tex		Pct	Pct	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx		22s or 27 tx
No	Name & Code			In	Pct	Rdg					Pct	No	Yel	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No	
SOUTH CENTRAL AREA																							
ARKANSAS																							
FOREMAN																							
4	SLM		41	34	1.09	44	4.1	88	24.7	6.4	3.0	2	2	95 PERCENT	39	6.1	4.8	100	70	27	25	65	
HELENA																							
4	LM		51	35	1.16	46	3.7	81	23.6	7.0	4.2	3	2	99 PERCENT	42	6.6	5.2	110	90	28	19	64	
HUGHES																							
4	LM		51	34	1.10	46	3.7	83	23.6	6.1	2.8	3	2	100 PERCENT	34	5.6	4.1	100	80	34	24	66	
PROCTOR																							
4	LM		51	34	1.09	45	3.9	82	23.2	6.4	3.7	3	2	100 PERCENT	38	5.9	4.8	100	80	42	26	58	
LOUISIANA																							
MONROE																							
4	SLM		41	34	1.12	45	3.9	83	23.7	6.6	2.6	2	2	100 PERCENT	40	6.4	4.8	90	80	33	27	65	
SICILY ISLAND																							
4	LM		51	34	1.10	46	3.3	85	23.7	6.2	4.6	2	2	100 PERCENT	40	5.9	4.5	100	80	37	31	58	
MISSISSIPPI																							
INDIANOLA																							
4	SLM		41	34	1.10	43	4.5	84	23.1	5.8	2.9	2	2	100 PERCENT	38	7.1	5.3	110	80	21	19	61	
WEST POINT																							
3	SLM LT SP		42	34	1.11	43	4.0	79	23.4	7.0	2.9	2	3	100 PERCENT	34	7.3	5.5	100	70	25	18	60	
MISSOURI																							
SIKESTON																							
3	SLM		41	34	1.06	46	3.8	83	22.8	7.0	2.8	2	3	100 PERCENT	38	6.3	4.8	100	80	29	21	63	
SIKESTON																							
3	SLM LT SP		42	34	1.06	46	4.2	82	21.7	6.9	2.9	3	3	95 PERCENT	36	6.2	4.5	120	90	27	17	63	

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1970 --- (Continued)

Production Area, Classification				Fiber Test Results										Processing Test Results - Carded Yarns											
Sample Number				Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint	Color Raw Stock		P & C Waste	Strength			Elongation			Appearance Index			Imprfct'ns		Spin. Potent- ial
No	Grade	Stple	32s	2.5% span	In	Pct	Rdg	Mpsi	G/tex	Pct	No	Yel	Pct	22s or 27 tx	50s or 12 tx	Lbs	Pct	22s or 27 tx	50s or 12 tx	No	22s or 27 tx	50s or 12 tx	No		
SOUTHWESTERN AREA																									
NORTHWEST TEXAS																									
LAMESA																									
3	SLM	41	34	1.06	47	3.9	91	25.1	6.5	3.8	2	3	6.5	75 PERCENT	124	45	6.1	4.7	100	80	32	27	69		
RAYLAND																									
2	SLM LT SP	42	32	1.00	46	4.7	97	23.1	5.6	4.0	3	4	7.4	100 PERCENT	105	33	5.3	3.6	120	90	40	26	52		
3	SLM LT SP	42	33	1.05	47	4.4	95	24.0	5.1	4.3	3	4	7.9	113	38	5.6	4.2	110	80	43	29	58			
ROPEVILLE																									
3	SLM	41	34	1.08	44	2.8	85	24.8	7.4	3.0	3	3	6.7	100 PERCENT	113	41	6.4	5.0	60	60	87	65	68		
VERNON																									
3	SLM LT SP	42	32	0.99	46	4.6	96	23.0	5.4	3.3	3	4	7.4	100 PERCENT	105	31	5.2	3.3	100	80	38	29	50		
WESTERN AREA																									
ARIZONA																									
YUMA																									
4	SLM	41	34	1.14	43	3.9	89	25.3	6.1	3.0	2	2	6.0	100 PERCENT	116	41	5.9	4.5	100	70	36	28	63		
CALIFORNIA																									
CHOWCHILLA																									
3	SLM	41	36	1.10	45	3.9	101	26.0	5.1	2.6	2	3	5.7	99 PERCENT	130	49	5.4	4.3	120	100	20	15	79		
COALINGA																									
3	SLM	41	35	1.11	45	3.2	99	25.4	4.8	3.1	2	3	7.3	100 PERCENT	119	43	5.1	4.0	60	60	57	51	75		
FIREBAUGH																									
3	SLM	41	35	1.10	47	4.1	98	26.0	5.3	2.9	2	3	6.3	100 PERCENT	126	46	5.8	4.6	120	90	20	13	72		
HANFORD																									
3	SLM	41	35	1.06	43	3.3	99	24.8	4.6	2.3	3	3	6.1	98 PERCENT	117	42	5.2	4.0	90	70	30	18	68		
CALIFORNIA																									
SAN JOAQUIN																									
3	SLM	41	35	1.06	47	4.1	100	27.6	5.6	3.5	2	3	7.9	100 PERCENT *	129	47	5.5	4.3	110	90	22	16	72		

* 100 percent selected for tests, less than 100 percent in the area.

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1970 --- (Continued)

Production Area, Classification & Sample Number		Fiber Test Results										Processing Test Results - Carded Yarns									
		Digital Fibrogaph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint		Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfect'ns		Spin. Poten- tial
No	Grade Name & Code	Stple	32s	In	Pct	Rdg	Mpsi	G/tex	Pct	Gra	No	Yel	27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	No
WESTERN AREA--- (Continued)																					
CALIFORNIA --- (Continued)																					
3	VISALIA																				
3	MID	31	36	1.14	46	4.3	100	27.2	4.6	1	3		100 PERCENT	49	5.7	4.6	120	90	15	12	76
WESTMORLAND																					
4	MID	31	34	1.07	43	4.3	88	24.7	5.7	1	3		100 PERCENT	33	5.4	3.7	120	90	16	12	55
WEST TEXAS																					
EL PASO																					
3	MID	31	36	1.14	44	3.3	94	25.0	5.8	1	2		100 PERCENT	47	5.9	4.5	60	60	65	49	78

Table 4--Cotton, American upland extra long staple: Quality characteristics by production areas, crop of 1970

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Combed Yarns									
No	Grade		Stple	Array Length		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint	Color Raw Stock		P & C Waste	Comber Waste	Strength		Elongation		Appearance Index		Imprfect'ns		
	Name & Code			UQL	CV		Zero Gage	1/8" Gage			No	Yel			50s or 12 tx	80s or 7 tx	50s or 12 tx	80s or 12 tx	50s or 12 tx	80s or 7 tx	50s or 12 tx	80s or 7 tx	
				In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No	
WESTERN AREA																							
ARIZONA																							
AGUILA																							
31	42	1.41	34	3.8	113	34.1	4.9	2.2	0	3	100 PERCENT	72	39	5.2	4.7	100	100	6	4				
3 MID DEL CERRO																							

Table 5 --Cotton, American Pima extra long staple: Quality characteristics by production areas, crop of 1970

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Combed Yarns									
Sample Number		Array Length		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint	Color Raw Stock		P & C Waste	Comber Waste	Strength		Elongation		Appearance Index		Imprfect'ns				
		UQL	CV		Zero Gage	1/8" Gage			Gra	Yel			50s or 12 tx	80s or 7 tx	50s or 12 tx	80s or 7 tx	50s or 12 tx	80s or 7 tx	50s or 12 tx	80s or 7 tx			
No	Grade	Stple	32s	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Pct	Lbs	Pct	Pct	No	No	No	No		
WESTERN AREA																							
ARIZONA																							
3	CASA GRANDE	3	44	1.42	36	3.3	102	35.1	5.9	4.5	3	5	10.1	16.9	72	39	6.2	5.0	100	100	5	5	
PEORIA																							
3		3	44	1.53	32	3.7	104	36.9	6.3	3.7	4	5	9.5	16.0	73	39	6.0	5.2	100	100	4	4	

